ATTORNEY DOCKET NO.: BIT-12

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
Re: Appeal to the Board of Patent Appeals and Interferences

In re Application of: Anthony S. Bradley

Group Art Unit: 3671

Serial No.: 09/612,810

Examiner: Raymond W. Addie

Filed: July 10, 2000

Our Customer ID: 22827

Title: Apparatus And Method For Deploying Geotextile Tubes

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Denise R. Ginn
(Typed or printed name of person mailing paper or fee)

Denise R. Ginn
(Signature of person mailing paper or fee)

PATENT

ATTORNEY DOCKET NO.: BIT-12

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of: ANTHONY S. BRADLEY	Examining Attorney: Raymond W. Addie
Serial No.: 09/612,810	Group Art Unit: 3671
Filed: July 10, 2000	

Title: APPARATUS AND METHOD FOR DEPLOYING GEOTEXTILE TUBES

APPLICANT'S REPLY BRIEF TO EXAMINER'S ANSWER
WITH NEW GROUNDS OF REJECTION

Honorable Commissioner of
Patents and Trademarks
Washington, DC 20231

Sir:

Applicant hereby requests that his appeal be maintained and replies to the Examiner's February 2006 Answer in accordance with 37 CFR §§ 41.39(b)(2) and 1.111 for the caption application, the Examiner's Answer having been mailed on February 15, 2006.

1. REAL PARTY IN INTEREST:

The real party in interest is Bradley Industrial Textiles, Inc., a closely held corporation that is the assignee of the Applicant's entire right title and interest.

2. RELATED APPEALS AND INTERFERENCES:

None.

3. STATUS OF CLAIMS:

Claims 7, 9, 10, 12, 36, 44 and 73-75 have been canceled.

Applicant appeals the rejections of all of the pending claims 1-6, 8, 11, 13-35, 37-43, 45-72, 76 and 77, which are under final rejection mailed on September 14, 2005, in the form of an Examiner's Answer that included new grounds of rejection pursuant to 37 C.F.R. § 41.39(a)(2).

4. STATUS OF AMENDMENTS:

No amendment has been made after the rejections mailed on September 14, 2005, in the form of an Examiner's Answer that included new grounds of rejection pursuant to 37 C.F.R. § 41.39(a)(2).

5. SUMMARY OF CLAIMED SUBJECT MATTER:

As set forth in the preamble to the patent application claims that are on appeal, the present invention relates to systems, structures and methods for maintaining fill material solids in position to form a barrier or dam. These structures, methods and

systems that are the subject of this application are called upon to resist some of Mother Nature's most powerful and unpredictable forces.

For the basic structure described in claims 1, 6, 16, 25, 31, 35, 42, 45 and 62, referring to Figs. 1-3 and page 11, lines 17-20 for example, a presently preferred embodiment of the apparatus includes a geotextile container 14. Referring to Fig. 8A and page 11, lines 23-25 for example, it can include an elongated sheet 17 of geotextile material formed into a tubular-shaped container 14 having an inside space. Concerning a means for seaming the first elongated sheet into a first continuous tubular-shaped container having an inside space in claims 1 and 6 for example, refer to seam 18 in Figs. 10 and 11, and page 6, lines 9-12, page 13, lines 1-9, and page 15, lines 12-24. Referring to Fig. 3 and page 28, lines 12-19 for example, at least two ballast tubes 28 are disposed within the inside space of the container 14.

Concerning claims 1, 6, 16, 22, 23, 25, 31, 35, and 42, with fill material solids 31 being held within the ballast tubes 28, refer to page 28, line 2 through page 29, line 18.

Concerning claim 45, with the ballast tubes 28 holding water, refer to page 29, lines 19-21.

Concerning claim 51, with fill material solids 31 being held within the container 14, refer to page 24, line 2 through page 25, line 2.

Concerning claim 4, refer to page 15, lines 1-11.

Regarding claims 6, 8, and 26 as described at page 21, lines 2-3, a pair of cradle tubes 34 (Figs. 2 and 3) can be placed on either side of the container 14 to form a cradle there between.

Regarding claim 11 as described at page 7, line 24 through page 8, line 6 and page 21, lines 23-25, each cradle tube 34 can contain more than one filler tube 33.

Concerning claims 13-15, 19-21, and 27-30 as explained at page 19, beginning at line 13, and shown in Figs. 2, 3 and 6, a blanket 29 forming a scour apron can be held in position by anchor tubes 30.

Concerning claims 22-24, the method is described beginning at page 25, line 25 and referring to Figs. 12A, 12B, 12C, 12D, 12E, 12F, 12G, 12H, 12I and 12J.

Concerning claim 25, with its solid fill material in a lower portion of a ballast tube and a liquid in the upper portion of the ballast tube, see the specification at page 6, lines 15-19, and beginning at page 27, line 17 through line 19 on page 28.

Concerning claims 31 and 45, wherein water is capable of moving into or out of the ballast tubes with semi-permeable ballast tubes for example, with the outer container being substantially impermeable, refer to page 32, lines 1-14.

Concerning claims 17, 18, 32, 34, 46 and 47, with the impermeable coating on the first elongated tube of geotextile material, refer to page 13, lines 10-25, page 30, lines 11-15, page 31, lines 3-7, and page 32, lines 21-25 and lines 14-18 for example.

Concerning claim 47, with the impermeable coating on the exterior surface of the first elongated tube of geotextile material, refer to page 32, lines 14-18 for example.

Concerning claim 33, with the fibers forming the material of the first elongated tube 14 of geotextile material, refer to page 3, lines 10-25 and page 32, lines 18-21 for example.

Concerning claims 35, wherein water is capable of moving into or out of the ballast tubes with semi-permeable ballast tubes for example, with the outer container being partially permeable but having an impermeable liner, refer to page 33, lines 1-16.

As to claims 37-41, 53-61, and 63-71, and the various ribs 18, hoops 22, belts 23, and straps forming reinforcing regions along the container, refer to page 16, line 17 through page 18, line 21 of the application.

Concerning claim 72, with its ports 41, 42 defined along the length of the container, refer to Figs. 12A, 12C, 12E, 12G, 12I, 13A, and 13B of the application.

Concerning claims 2, 3, 35, 49 and 50, with an inner liner for the container, refer to Figs. 8A and 9 and page 14, line 1 through page 15, line 11.

Concerning claims 42, 43, 52-67, 69-71, 76 and 77, with reinforced regions 24 along the length of the elongated container, refer to Figs. 4A, 4B, 5B, 5C, 5D, 8A, 9, 10, 11 and 12E, as well as the description beginning at line 24 of page 17 through line 17 of page 18.

6. GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL:

Claims 1, 4, 5, 16-18, 22-25, 31-34, 37, 42 and 45-57 stand finally rejected under 35 U.S.C. § 103(a) as unpatentable over US Patent No. 5,125,767 to Dooleage ("Dooleage") in view of US Patent No. 3,957,098 to Hepworth et al ("Hepworth et al").

Claims 2, 3, 38-41, 49, 50, and 58-61 stand finally rejected under 35 U.S.C. § 103(a) as unpatentable over Dooleage in view of Hepworth et al as applied to claims 1, 42 and 45 and further in view of US Patent No. 5,902,070 to Bradley (hereinafter "Bradley").

Claims 43 and 37 stand finally rejected under 35 U.S.C. § 103(a) as unpatentable over Dooleage in view of Hepworth et al as applied to claim 42 and further in view of GB 1,487,986 to Labora ("Labora").

Claims 6, 8, 11, 13-15, 19-21 and 26-30 stand finally rejected under 35 U.S.C. § 103(a) as unpatentable over Dooleage in view of Hepworth et al and US Patent No. 5,158,395 to Holmberg.

Claim 35 stands finally rejected under 35 U.S.C. § 103(a) as unpatentable over Dooleage in view of Hepworth et al and Bradley.

Claims 62-72, 76 and 77 stand finally rejected under 35 U.S.C. § 103(a) as unpatentable over Dooleage in view of Bradley.

Claims 76 and 77 stand finally rejected under 35 U.S.C. § 103(a) as unpatentable over Bradley in view of Dooleage.

7. ARGUMENT:

All of the rejections are based on Section 103(a). Accordingly, the perspective of the person of ordinary skill becomes an important factor in assessing the rejections. On page 21 of the February 2006 Examiner's Answer, the discussion about the scale of the structures involved was dismissed merely because none of the claims expresses a certain size. However, notwithstanding the absence of any size limitation in the claims, Section 103(a) requires consideration of the perspective that a person of ordinary skill would bring to the assessment of the claimed subject matter. That perspective is apparent from the very references relied upon by the Examiner's Answer. Such

references reveal an awareness that these type of structures are very large and involve forces of great magnitude.

Dooleage Fig. 1 shows an elevation of the invention positioned as a dam in a flow channel. Dooleage column 1, lines 17-21 refers to their use "for protection against water damage that may occur from floods." Hepworth et al indicates (per column 3, lines 38-40) that the typical working embodiment of an individual bag 10 has a length of ten feet and a width of five feet. Fig. 4 of Hepworth et al shows that many of these ten feet by five feet bags aligned end-to-end and side-to-side are involved in building these types of structures. The size and scale of these structures also is apparent in Holmberg Figs. 1, 3, 14, 16, 20 and 21. Column 6, lines 8-11 of Bradley speaks to rupture strengths of the material being between 200 pounds and 1,000 pounds.

What all of this means, and what Applicant attempted to convey, is that the skilled artisan is unlikely to willy nilly extract features used in one structure and apply them to another structure as cavalierly as one would conclude from reading the explanations provided in the Examiner's Answer. Accordingly, the failure of the Examiner's Answer's to credit the concern of the skilled artisan with the potential catastrophic consequences of a structural failure in this art, runs counter to the requirements of 35 U.S.C. § 103(a). The consequences of such catastrophic structural failures have manifested themselves during the aftermath of Hurricanes Katrina and Rita. It is in this context that Applicant again provides the following discussion.

Applicant is in his early-70's now, and has been in this business for many years. He has often been reminded that Applicant's business is very much a struggle against the unpredictability and power of Mother Nature, which constantly acts to reclaim the

land that Applicant's barriers and methods try to preserve. Applicant's business is located in Florida where another hurricane season has passed, and the consequences of losing this struggle are still fresh in the memory.

The size and scope of these types of structures that are called upon to resist these powerful forces of wind and wave action are massive. The drawings in some of the references attempt to convey the relative sizes of these kinds of structures. But even these drawings are incapable of providing the impact of actually seeing these structures being built and put into place as Applicant has done for many years. In an attempt to provide the Office with an appreciation of the experience of an encounter with some of these structures, Applicant provided in his Amendment After Final Rejection, a copy (attached at the end of this brief before the Appendix of Claims) of one of his company's brochures (published in December, 1997) containing photos that give some idea about the size of the outermost envelope of these structures in relation to a man standing inside one of the containers (lower right corner) and in relation to a man standing on top of a container disposed next to dredging machines (lower left corner).

The rejections in the Examiner's Answer are characterized by the selective application of various structural elements in the references in order to make up the full complement of elements required by the claims. This is improper, and the rejections should be reversed. In re Fine, 5 USPQ 2d 1596, 1600 (Fed. Cir. 2000) ("One cannot use hindsight reconstruction to pick and choose among isolated disclosures in the prior art to deprecate the claimed invention.").

The motivation supplied by the Examiner's Answer for selecting particular elements from a reference versus selecting other potential elements in a reference, ignores the fact that the magnitudes of the forces involved in these types of structures and the disastrous, if not catastrophic, results upon their failure once they are put into place for their intended uses, tends to make persons of ordinary skill far more hesitant to extract particular structural elements from one environment or type of structure and apply them to another, than is reflected in the final rejections. Yet, the rejections repeatedly resort to this type of selective process when combining different elements from different references in precisely the manner that is described in Applicant's claims. Applicant respectfully submits that in doing so, the rejections ignore the caution that persons of ordinary skill in this art must apply when constructing these types of structures. Moreover, in a number of instances the motivations upon which the selections purport to rely, are factually inaccurate. With this generally applicable overview in mind, Applicant turns to address the specific references and rejections.

A. Every Rejection That Relies on the Asserted Modification of Dooleage as Taught by Hepworth et al Is Fatally Flawed

With the exception of claims 62-72, 76 and 77, each of the claims on appeal has been rejected based on modification of Dooleage according to Hepworth et al. This modification is expressed on page 4, lines 1-4 of the February 2006 Examiner's Answer, which concludes that:

> it would have been obvious to one of ordinary skill in the art, at the time the invention was made to provide the barrier bags of Dooleage, with solid fill materials, as taught by Hepworth et al., in order to expand the utility of the system, by configuring the system to dissipate wave energy.

However, this conclusion is not supported by the clear teachings of the two references involved and therefore is clearly erroneous. Specifically, this erroneous conclusion ignores the incompatible teachings that the two references express to persons of ordinary skill. And there is no way to reach this conclusion from Dooleage and Hepworth et al without inaccurately portraying the teaching of Hepworth et al, making selective use of the teaching of Hepworth et al and Dooleage and applying a hindsight peek at Applicant's disclosure.

In particular, Dooleage teaches impermeable bags 11 and 12 (col. 2, lines 33-34) made of a suitable flexible, impervious material such as vinyl plastic, reinforced neoprene rubber or reinforced butyl rubber (col. 2, lines 41-43). Hepworth et al introduces gravel into its bags. But gravel has sharp edges, and Dooleage's bags are formed of materials that will be torn to shreds by gravel with sharp edges. Thus, "to provide the barrier bags of Dooleage, with solid fill materials, as taught by Hepworth et al.," according to the February 2006 Examiner's Answer will destroy Dooleage's bags and thereby render them useless for any purpose. Accordingly, doing as the February 2006 Examiner's Answer suggests would be done by the person of ordinary skill, would not "expand the utility of the system, by configuring the system to dissipate wave energy," as the Examiner's Answer concludes.

Dooleage also provides (col. 2, lines 47-49) a vent tube 16 (Fig. 5) that extends from the top of each bag 11, 12 to allow air to escape as the bag is filled with water. In Dooleage Fig. 5, one notes the diminutive size of the vent tube 16 relative to the size of the filler spout 14. That is because the vent tube is to allow escape of air, a compressible fluid, rather than water, which is an incompressible fluid.

Hepworth et al fails to disclose or suggest putting solids into impermeable ballast tubes that retain liquid as do the Dooleage barrier bags. Instead, Hepworth et al teaches (col. 1, lines 21-25) that if the bags 10 are to be filled with water and a filler such as sand, gravel, etc., then the bags must be made of a fabric that has a porosity of between 10 and 35 cubic feet per minute so that any air and/or water within the bag may escape from the bag at the same rate that water and/or the filler is pumped into the bag (col. 3, lines 25-32). In stark contrast to the porosity of the Hepworth et al bags 10, because the Dooleage bags are impermeable, the Dooleage bags 11, 12 have zero porosity. Moreover, Hepworth et al teaches that:

> When the porosity of the bag 10 is below 10, the water does not escape fast enough whereby the sand will back out through the nozzle opening.

Rest assured that the person of ordinary skill is well aware that zero porosity constitutes a porosity that is below 10. The impermeable material forming the Dooleage barrier bags 11, 12 with the vent tube 16 falls very short of what Hepworth et al teaches the skilled artisan is the minimum requirement for introducing solid fill material into bags. Thus, the person of ordinary skill would not read Hepworth et al to teach the provision of solid fill materials through the filler spout 14 into the Dooleage barrier bags 11, 12 with the vent tube 16. If Hepworth et al teaches anything to the person of ordinary skill, it is that any attempt to provide the impermeable Dooleage barrier bags 11, 12 with solid fill materials is likely to result in the sand backing up out of the inlet nozzle, thereby rendering the attempt a complete waste of time, energy and expense. A fair reading of Hepworth et al teaches away from providing fill material solids to the impermeable Dooleage barrier bags 11, 12. Thus, Dooleage's lack of any

teaching of solids within its impermeable barrier bags 11, 12 is not corrected by Hepworth et al.

Secondly, Hepworth et al does not concern itself with ballast tubes formed of impermeable material and filled with water. Moreover, the asserted contentions of the rejection misstate the teaching of Hepworth et al. Hepworth et al does not teach pumping a water/solids slurry into impermeable tubes such as are required by Dooleage. Hepworth et al only teaches pumping a water/solids slurry into bags that are water permeable so that the water can filter through the bags and leave only the rigid sand, gravel or cement inside the bags. Yet without any guidance from either Dooleage or Hepworth et al, somehow the person of ordinary skill is directed to select the right sort of material and use it to form ballast tubes and then fill them with solids without resort to Applicant's disclosure on any of these points. And yet it must be conceded that Hepworth et al fails to disclose or suggest ballast tubes at all, much less putting solids into impermeable ballast tubes that retain liquid as do the Dooleage barrier bags.

Thirdly, the above-quoted conclusion of the February 2006 Examiner's Answer is rendered implausible by the following facts. The present application was filed in July of 2000. The Hepworth et al disclosure was first made public in December, 1976, some sixteen years before the Dooleage disclosure was first made public in June, 1992. The rejection does not rely on any teaching that became public after the Dooleage issue date. Thus, if the base contention of the rejection were true, then the invention of Applicant's claims would have been obvious as of the June 1992 issue date of Dooleage. During the eight (8) years between Dooleage's issue in 1992 and the filing of the present application in 2000, there has been no diminishment of flooding or beach

erosion in the world nor in the need for artificial reefs for sea animals. Why then is there no teaching like these contentions for more than 8 years until the present application is filed in July 2000? It is because the asserted contentions of the rejection are counterintuitive to the person of ordinary skill rather than obvious to the person of ordinary skill. Accordingly, the asserted contentions of the rejection cannot stand the test of fulfilling the requirement for substantial evidence in support of a finding of obviousness.

The February 2006 Examiner's Answer repeatedly and erroneously regards the Dooleage bags 11, 12 as ballast tubes. For example, beginning at about the middle of page 3, the February 2006 Examiner's Answer asserts that (emphasis added):

> Dooleage discloses a system for forming a barrier or dam, the system comprising: * * * At least 2 **ballast tubes** (11, 12, 19) disposed within the container (13). * * * Although Dooleage discloses filling the **ballast tubes** with water;

However, this assertion and others like it are seriously flawed. By being filled with water, Dooleage's bags have neutral buoyancy in water and thus cannot function as ballast tubes, which must be heavier than water in order to provide stability in a water environment. Even the water-filled bag 20 that serves as the anchor means 19 must be shaped as a donut in order to prevent it from rolling per Dooleage column 3, lines 10-17.

The Dooleage bags are to be filled with water only, not any earthly solids like sand, dirt, gravel, etc. Instead of leaving water in the bags, Hepworth et al at column 3, lines 29-31 states that the requisite porosity will "insure discharge of water through the bag when water and filler material are pumped into the bag." Indeed, the February

2006 Examiner's Answer itself concedes this point when it states at page 8, lines 15-18 that the Hepworth et al barrier 40 is:

> formed of a plurality of semi-permeable geotextile material, in order to permit water to pass from the interior of an erosion control bag, to an exterior thereof, thus leaving a previously water-filled erosion control bag with solid fill material, such as local beach sand, gravel or delivered cement, etc. See Col. 1, lns. 20-25.

Thus, the Dooleage teaching is irreconcilable with the Hepworth et al teaching unless one has the guidance of Applicant's disclosure.

The disclosure of Dooleage is irreconcilable with the disclosure of Hepworth et al on another point. Per Dooleage column 1, lines 52-53, Dooleage makes clear that it employs water-filled bags in order to provide a water-filled, flexible barricade. In stark contrast to such a water-filled flexible barricade, Hepworth produces bags that are filled with sand, gravel or cement, without any water remaining in the bags, thus producing a rigid structure that is neither water-filled nor flexible. The differences in the structural and dynamic characteristics of a flexible water-filled structure (Dooleage) versus a rigid structure filled with solid material (Hepworth et al) is manifestly apparent to the skilled artisan and recognized as being at two opposite ends of the spectrum of structures.

Accordingly, in view of the irreconcilable teachings of Hepworth et al and Dooleage, the person of ordinary skill would not derive from these references the provision of fill material solids inside the impermeable barrier bags 11, 12 of Dooleage. Moreover, in view of the plain teachings of Hepworth et al and Dooleage, any contrary conclusion is clearly erroneous. Thus, the final rejections that are based on this flawed conclusion are fatally flawed and should be reversed by the Board for this reason alone.

B. Claims 1, 4, 5, 16-18, 22-25, 31-34, 37, 42 and 45-57 Are Patentable under 35 U.S.C. § 103(a) over Dooleage in View of Hepworth et al

Each of claims 1 and 16 requires an elongated tubular-shaped container having an inside space that contains at least two ballast tubes, which themselves are filled with fill material solids.

Claim 22 requires pumping a water/solids slurry into at least one ballast tube of a plurality of independent ballast tubes that are disposed within an elongated container. Claim 22 further requires pumping a water/solid slurry into the elongated container.

Claim 23 requires pumping a water/solids slurry into a plurality of ballast tubes that are disposed within an elongated container.

Claim 25 requires a plurality of independent ballast tubes within an elongated container and at least one ballast tube containing solid fill material in a lower portion of the ballast tube and a liquid in the upper portion of the ballast tube so that the upper portion of the ballast tube is capable of absorbing wave energy to maintain the structure in a stationary position.

Claim 31 requires a plurality of independent ballast tubes within an elongated tube made of impermeable geotextile material, the ballast tubes being semi-permeable and solid fill material in at least one of the ballast tubes.

Claim 42 requires a plurality of independent ballast tubes within an elongated fabric container that has a plurality of longitudinally spaced reinforced regions along its length, the ballast tubes having solid fill material within their inside spaces.

Thus, each of the independent claims 1, 16, 22, 25, 31 and 42 requires an elongated container within which are disposed ballast tubes, and at least one of the

ballast tubes contains solid fill material. In the Examiner's Answer, the rejection of each of independent claims 1, 16, 22, 25, 31 and 42 therefore depends on the flawed conclusion explained above in section A. As these rejections are based on this flawed conclusion, the rejections should be reversed.

Applicant therefore respectfully submits that claims 1, 4, 5, 16-18, 22-25, 31-34, 37, and 42 are patentable under 35 U.S.C. § 103(a) over Dooleage in view of Hepworth et al for this first reason alone.

1. Claims 22-24 and 31-34

The rejection of claims 22-24 is based on the contention stated on page 5, line 20 through page 6, line 4 of the February 2006 Examiner's Answer that (emphasis added):

> it would have been obvious to one of ordinary skill in the art, at the time the invention was made, to provide the method of shoreline revetment of Dooleage, with the steps of inflating a plurality of erosion control bags with water and then a slurry, using immediately available fill material, such as sea floor or beach sand, as taught by Hepworth et al., in order to create **new habitats**, such as artificial reefs **for sea animals**. See Col. 3, lns. 10-38.

Similarly, the rejection of claims 31-34 is based on the contention stated on page 6, lines 14-18 of the February 2006 Examiner's Answer that (emphasis added):

> it would have been obvious to one of ordinary skill in the art, at the time the invention was made to provide the barrier bags of Dooleage, with solid fill materials, as taught by Hepworth et al., in order to create **new habitats**, such as artificial reefs **for sea animals**. See Col. 3, lns. 10-38.

Both of these contentions are based on the same false assumption and are thus unsupportable. While Hepworth et al speaks of an artificial reef as an erosion control reef, neither Hepworth et al (not in Col. 3, lns. 10-38 nor anywhere else) nor Dooleage

says anything about creating artificial reefs as new habitats for sea animals. The final rejection rests on this additional factually inaccurate portrayal of Hepworth et al, and thus cannot stand.

Applicant therefore respectfully submits that the above-noted additional inaccuracies in the portrayal of the teachings of Hepworth et al provide additional reasons that claims 22-24 and 31-34 are patentable under 35 U.S.C. § 103(a) over Dooleage in view of Hepworth et al.

2. Claim 25

Claim 25 was rejected under 35 U.S.C. § 103(a) as unpatentable over Dooleage in view of Hepworth et al. As noted above, claim 25 specifies an elongated container that contains a plurality of independent ballast tubes, which contain solids as fill material. Per claim 25, at least one ballast tube contains solid fill material in a lower portion of the ballast tube and a liquid in the upper portion of the ballast tube so that the upper portion of the ballast tube is capable of absorbing wave energy to maintain the structure in a stationary position. According to the sentence on page 5, lines 15-17 of the February 2006 Examiner's Answer, the following teaching is attributed to Hepworth et al in support of the rejection of claim 25:

> Pumping a slurry into each of said erosion control bags (10) to dissipate most, if not all of said water, already inside of said bags (10), thereby leaving said bags filled with a lower layer of solid fill material and if desirable an upper layer of water.

However, attributing such a teaching to Hepworth et al is yet another false conclusion about what the prior art conveys to the person of ordinary skill. In fact, there is absolutely no such teaching in Hepworth et al of leaving bags filled with a lower layer

of solid fill material and an upper layer of water. Instead, Hepworth et al teaches that the bags are left filled only with sand, gravel or cement because the water has leaked out through the porous material that defines the bags 10. Moreover, the February 2006 Examiner's Answer itself admits as much on page 8, lines 15-18 where it describes the Hepworth et al barrier 40 as (emphasis added):

> being formed of a plurality of semi-permeable geotextile material, in order to permit water to pass from the interior of an erosion control bag, to an exterior thereof, thus **leaving a previously water-filled erosion control bag with solid fill material, such as local beach sand, gravel or delivered cement, etc.** See Col. 1, lns. 20-25.

Thus, page 8 of the February 2006 Examiner's Answer contradicts the sentence on page 5, lines 15-17.

Moreover, Hepworth et al teaches at column 3, lines 15-16 that it is the pyramiding effect of placing one row of bags atop another row of bags that "reduces the effect of the waves," not the provision of water atop sand in any one bag. This Hepworth et al teaching directly contradicts the above-quoted statement of the Examiner's Answer, which selectively chooses to ignore all Hepworth et al teachings that contradict the conclusion of obviousness.

Additionally, the two disclosures, Dooleage and Hepworth et al, are contradictory on another major point. As the first two lines of the first object of the Dooleage patent makes clear at col. 1, lines, 52-53, Dooleage employs water-filled barrier bags in order "to provide a water filled, flexible barricade . . . ." Yet the Hepworth et al device is rigid as sand, gravel or cement, which is not in any sense "flexible." This rigid aspect of the Hepworth et al bags 10 is apparent from the very same passage (Hepworth et al col. 3, lns. 10-38) cited by the rejection. There it is clearly stated that the Hepworth et al bags

are filled with sand, gravel or cement, while any water leaves. Hepworth et al col. 3, lns. 29-31 states that the disclosed requisite porosity will "**insure discharge of water through the bag** when water and filler material are pumped into the bag." Emphasis added. Thus, to pump water/solids slurry into the Dooleage barrier bags would contradict the teaching of Dooleage "to provide a water filled, flexible barricade." To say that any water would remain in the Hepworth et al bags is to ignore Hepworth et al's teaching that the requisite porosity will "insure the discharge of water through the bag."

Applicant therefore respectfully submits that the above-noted additional inaccuracies in the portrayal of the teachings of Hepworth et al provide additional reasons that claim 25 is patentable under 35 U.S.C. § 103(a) over Dooleage in view of Hepworth et al.

3. Claims 37, 42 and 45-50

The rejection of claims 42 and 37 is based on the contention stated on page 7, lines 18-21 of the February 2006 Examiner's Answer that (emphasis added):

> it would have been obvious to one of ordinary skill in the art, at the time the invention was made to provide the barrier bags of Dooleage, with solid fill materials, as taught by Hepworth et al., in order to form an artificial reef, by **configuring the system to dissipate wave energy**.

Similarly, the rejection of claims 45-50 is based on the contention stated on page 8, lines 18-22 of the February 2006 Examiner's Answer that (emphasis added):

> it would have been obvious to one of ordinary skill in the art, at the time the invention was made to provide the barrier bags of Dooleage, with solid fill materials, as taught by Hepworth et al., in order to expand the utility of the system, by **configuring the system to dissipate wave energy**.

However, this asserted motivation of configuring the system to dissipate wave energy directly contradicts the fundamental purpose of Dooleage's use of water-filled barrier bags. That purpose is to absorb wave energy by the displacement of the liquid inside the barrier bags upon impact by the waves. Substituting solid fill material into a ballast tube will not accomplish this purpose. Accordingly, the motivation asserted by the Final Rejection is factually inaccurate, as it does not exist. One is tempted to say that it does not hold water. Since the asserted motivation is factually inaccurate, the rejection of claims 42, 37 and 45-50 should be reversed for this additional reason.

C. Claims 45-57 Are Patentable under 35 U.S.C. § 103(a) over Dooleage in View of Hepworth et al

Claim 45 requires at least two semi-permeable ballast tubes containing water to be disposed within the interior of an elongated fabric container formed of impermeable material so that the water can pass between each of the ballast tubes and the interior of the container and from one ballast tube to the other ballast tube. The Examiner's Answer provides the following reason why claim 45 is rendered obvious:

> Said barrier (40) being formed of a plurality of semi-permeable geotextile material, in order to permit water to pass from the interior of an erosion control bag, to an exterior thereof, thus leaving a previously water-filled erosion control bag with solid fill material, such as local beach sand, gravel or delivered cement, etc. See Col. 1, lns. 20-25. Therefore, it would have been obvious to one of ordinary skill in the art, at the time the invention was made to provide the barrier bags of Dooleage, with solid fill materials, as taught by Hepworth et al., in order to expand the utility of the system, by configuring the system to dissipate wave energy.

However, this reason is deficient. It fails to explain why Hepworth et al would counsel the person of ordinary skill to substitute at least two semi-permeable ballast tubes for two impermeable barrier bags of Dooleage in order to satisfy claim 45's requirement for at least two semi-permeable ballast tubes. Thus, the rejection of claim 45 is deficient and should be reversed.

Moreover, the probable reason for this deficiency in the rejection of claim 45 is because the case cannot reasonably be made to read Hepworth et al as counseling the person of ordinary skill to substitute at least two semi-permeable ballast tubes for two impermeable barrier bags of Dooleage. While Hepworth et al contemplates filling a porous bag with a water-solids slurry via a nozzle opening 36, Hepworth et al does not contemplate infusion of water into any tube via the porous walls of the tube. Nor does Dooleage contemplate infusion of water into any ballast tube via the porous walls of the ballast tube. Only Applicant's disclosure guides the person of ordinary skill to pick and choose disparate elements from the disclosures of Dooleage and Hepworth et al in order to arrive at a structure such as described in claim 45.

Applicant therefore respectfully submits that claims 45-57 are patentable under 35 U.S.C. § 103(a) over Dooleage in view of Hepworth et al.

1. Claims 46-48

Claims 46-48 rely on a coating to render the fabric of the container impermeable. Claim 47 disposes the coating on the exterior of the container, and claim 48 disposes the coating on the interior of the container. Dooleage fails to suggest any sort of fabric container rendered impermeable by virtue of a coating in any respect. Per column 2, lines 41-43, Dooleage discloses that its container 13 is made of vinyl plastic, reinforced

neoprene rubber or reinforced butyl rubber. None of these is a coated fabric as required by claims 46-48. Moreover, these materials already are impermeable. Yet the Examiner's Answer fails to explain why the skilled artisan would derive from Hepworth et al the idea of coating a fabric to achieve impermeability and substitute such a fabric for the Dooleage container 13 made of vinyl plastic, reinforced neoprene rubber or reinforced butyl rubber.

The coatings employed on the filaments of the fabric disclosed in Hepworth et al are employed for purposes other than to render the fabric impermeable. In Hepworth et al, the coatings are employed for the purpose of controlling the porosity so that the bag 10 can be rendered porous (Hepworth et al column 2, lines 25-29) to the minimum degree required by Hepworth et al or for the purpose of resisting ultraviolet, infrared, mildew and leeching (Hepworth et al column 3, lines 51-61). Because Hepworth et al teaches a required minimum level of porosity, which precludes impermeability, the skilled artisan would not look to Hepworth et al for any teaching of how to achieve impermeability. Thus, Hepworth et al cannot be viewed as teaching the use of a coating to render the fabric impermeable. This noted deficiency in the rejection is yet another reason that claims 46-48 are patentable under 35 U.S.C. § 103 (a) over Dooleage in view of Hepworth et al.

2. Claims 49 and 50

Each of claims 49 and 50 requires rendering the container impermeable by the disposition of "an impermeable liner." Resort to the specification at page 14, line 1 through page 11, line 11 makes it abundantly clear that the liner 27 (Figs. 8A and 9) is a separate sheet of material and differs from the coating of claims 46-48. Thus, contrary

to the assertion of the February 2006 Examiner's Answer at page 9, lines 11-12, the liner cannot be seen to be mere alternative language similar to the coating of claims 46-48.

Claim 49 requires the impermeable liner to be "disposed adjacent the interior surface of the container." The final rejection of claim 49 is deficient in providing any motivation for introducing an impermeable liner that is disposed adjacent the interior surface of the container of Dooleage. Additionally, claim 50 requires the disposition of "an impermeable liner that is disposed around and encloses the at least two ballast tubes in the interior of the container." The final rejection of claim 50 is deficient in providing any motivation for introducing an impermeable liner that is disposed around and encloses the at least two barrier bags that are in the interior of the container of Dooleage.

According to page 8, line 3 of the February 2006 Examiner's Answer, the rejection of claims 49 and 50 already assumes that the Dooleage container 13 is formed of impermeable material. Moreover, the barrier bags 11, 12, 19 within the container 13 of Dooleage are already formed of impermeable material. Thus, there is no motivation for the skilled artisan to provide yet another impermeable liner around what are already impermeable bags 11, 12, 19 disposed within an impermeable container 13. Nor does the final rejection even offer any motivation for such an apparent double-redundancy. Only Applicant's disclosure provides the suggestion to the person of ordinary skill to do so. Accordingly, claims 49 and 50 are patentable under 35 U.S.C. § 103 over Dooleage in view of Hepworth et al for this additional reason.

3. Claim 51

Claim 51 depends on claim 45. Accordingly, the final rejection of claim 51 is similarly deficient for the reasons noted above in connection with claim 45.

Additionally, claim 51 requires the disposition of solid fill materials in the interior of the container. The final rejection is deficient in providing any motivation for introducing solid fill material into the container of Dooleage, which already contains at least water-filled barrier bags. Only Applicant's disclosure provides the suggestion to the person of ordinary skill to do so. Accordingly, claim 51 is patentable under 35 U.S.C. § 103 over Dooleage in view of Hepworth et al for this additional reason.

4. Claims 52-57

Claims 52-57 depend on claim 45. Accordingly, the final rejection of claim 52-57 is similarly deficient for the reasons noted above in connection with claim 45.

D. Claims 2, 3, 38-41, 49, 50 and 58-61 Are Patentable Under Section 103(a) Over Dooleage in view of Hepworth et al and further in view of Bradley

1. Claims 2 and 3

Claims 2 and 3 were finally rejected under 35 U.S.C. 103(a) as unpatentable over Dooleage in view of Hepworth et al as applied to claim 1 and further in view of Bradley. However, Bradley does not speak to the provision of ballast tubes of any sort disposed inside an outer container, whether the outer container is permeable or impermeable and whether the ballast tubes contain water or solids. Because of the deficiencies noted above in Section A in the asserted combination of Dooleage and Hepworth et al as applied to claim 1, and the failure of Bradley to correct these

deficiencies, claims 2 and 3 are patentable over these combined references asserted in the Examiner's Answer.

2. Claims 38-41

Claims 38-41 were finally rejected under 35 U.S.C. 103(a) as unpatentable over Dooleage in view of Hepworth et al as applied to claim 42 and further in view of Bradley. Because of the deficiencies noted above in Sections A and B in the asserted combination of Dooleage and Hepworth et al as applied to claim 42, and the failure of Bradley to correct these deficiencies, claims 38-41 are patentable over these combined references asserted in the Examiner's Answer.

3. Claims 49, 50 and 58-61

Each of claims 49, 50 and 58-61 depends on claim 45. Accordingly, the final rejection of claims 49, 50 and 58-61 is similarly deficient for the reasons noted above in Sections A and B in connection with claim 45.

4. Claims 49 and 50

Moreover, the rejection of claims 49 and 50 is based on the following statement on page 12 lines 3-4 of the February 2006 Examiner's Answer:

> Dooleage Hepworth et al. disclose the use of geotextiles that are permeable or impermeable, dependent upon the choice of fill material;

However, this statement is clearly erroneous. Dooleage only teaches that when disposing barrier bags filled with water inside an impermeable container, the barrier bags are formed of impermeable material such as vinyl plastic, reinforced neoprene rubber or reinforced butyl rubber (col. 2, lines 41-43). Thus, Dooleage fails to teach that the material forming the barrier bags is any sort of a geotextile fabric. Hepworth et

al only teaches that when a discrete bag is to be filled with a water/solid slurry, the bag is to be formed of geotextile material that has a certain minimum porosity. Thus, Hepworth et al fails to teach when to make the geotextile impermeable, and certainly fails to teach that the choice of permeable or impermeable depends on the choice of fill material.

Additionally, claim 49 requires rendering the container impermeable by the disposition of "an impermeable liner that is disposed adjacent the interior surface of the container." Claim 50 requires the disposition of "an impermeable liner that is disposed around and encloses the at least two ballast tubes in the interior of the container." As noted above in Section C, the final rejection of claims 49 and 50 in the Examiner's Answer is deficient in providing any motivation for introducing an impermeable liner that is disposed adjacent the interior surface of the container of Dooleage. The rejection of claims 49 and 50 is based on the contention stated on page 12, lines 9-12 of the February 2006 Examiner's Answer that (emphasis added):

> it would have been obvious to make the elongate container of Dooleage in view of Hepworth et al., with an inner, impermeable liner disposed adjacent the interior surface of the container as taught by Bradley, **in order to utilize the local beach sand**. See Bradley col. 10.

However, this asserted motivation is implausible and thus cannot serve as the statutorily required motivation. Per page 8, line 3 of the February 2006 Examiner's Answer, the rejection of claims 49 and 50 already assumes that the Dooleage container 13 is formed of impermeable material. Moreover, the barrier bags 11, 12, 19 within the container 13 of Dooleage already are formed of impermeable material. Thus, there is no motivation for the skilled artisan to provide yet another impermeable liner inside

Dooleage's impermeable container 13 and around what are already Dooleage's impermeable bags 11, 12, 19. Nor does the Examiner's Answer even offer any motivation for such an apparent double redundancy. The desire to use local beach sand is not facilitated by an impermeable liner under these circumstances, and such a desire bears no discernible relation to an impermeable liner. Only Applicant's disclosure provides the suggestion to the person of ordinary skill to employ an impermeable liner under these circumstances. Accordingly, each of claims 49 and 50 is patentable under 35 U.S.C. § 103 over Dooleage in view of Hepworth et al and further in view of Bradley for this additional reason.

E. Claim 35 Is Patentable under 35 U.S.C. § 103(a) over Dooleage in View of Hepworth et al and Bradley

Claim 35 requires a first elongated tube formed of partially permeable geotextile material and having a substantially waterproof inner liner and containing ballast tubes that are generally semi-permeable and at least one ballast tube holds solid fill material therewithin. The rejection of claim 35 in the Examiner's Answer relies on a counterintuitive selection of features from the three references, and such selection would not have been made by the skilled artisan without the guidance of Applicant's disclosure.

Bradley does not speak to the provision of ballast tubes of any sort disposed inside an outer container, whether the outer container is permeable or impermeable and whether the ballast tubes contain water or solids. Because of the deficiencies noted above in Section A in the asserted combination of Dooleage and Hepworth et al

as applied to claim 1, the deficiencies noted above in Section C in the asserted combination of Dooleage and Hepworth et al as applied to claim 45, and the failure of Bradley to correct these deficiencies, claim 35 is patentable over these combined references asserted in the Examiner's Answer for this first reason.

As stated previously, Dooleage does not teach ballast tubes that are semi-permeable, and to the contrary teaches against such semi-permeability for barrier bags. Dooleage already has an outer container 13 for the barrier bags that can be permeable, and Hepworth et al teaches an outer bag that is permeable. So Dooleage has no need for Bradley to again suggest that the outer container be permeable or semi-permeable. However, where barrier bags are concerned, Dooleage teaches only the use of impermeable bags that are filled with a liquid, namely, water, not solid fill. Neither Hepworth et al nor Bradley teaches any ballast tubes at all, much less semi-permeable ballast tubes, and thus neither Hepworth et al nor Bradley cures the noted deficiency in the Dooleage disclosure when it comes to semi-permeable ballast tubes. Because Dooleage teaches against semi-permeable barrier bags, the combined disclosures of Dooleage, Hepworth et al and Bradley fail to suggest to the person of ordinary skill to employ semi-permeable material for ballast tubes. Only Applicant's disclosure tells the person of ordinary skill to employ semi-permeable geotextile material for ballast tubes. Applicant therefore respectfully submits that claim 35 is patentable under 35 U.S.C. § 103(a) over Dooleage in view of Hepworth et al and Bradley for at least this additional reason.

Moreover, the combined disclosures of Dooleage, Hepworth et al and Bradley are further deficient in failing to suggest the use of fill solids (as in Hepworth et al and

Bradley) in place of the liquid water used to fill the barrier bags of Dooleage. The Dooleage patent only teaches the use of a liquid in its impermeable barrier bags. Dooleage fails to suggest or contemplate the use of solids within barrier bags. Neither Hepworth et al nor Bradley corrects this deficiency in Dooleage. Hepworth et al and Bradley merely teach the use of solids in a container that lacks ballast tubes therein. Neither Hepworth et al nor Bradley suggests or discloses the use of ballast tubes within its container. Thus, neither Hepworth et al nor Bradley suggests or contemplates the use of solids within ballast tubes. Absent this suggestion, Hepworth et al and Bradley fail to correct the noted deficiency regarding solid fill in Dooleage's barrier bags. Absent the hindsight of Applicant's disclosure, there is no suggestion to the person of ordinary skill to replace the water in Dooleage's impermeable barrier bags with solid fill material as in Bradley's geotextile container or Hepworth et al's bag, neither of which being a ballast tube, much less a plurality of independent ballast tubes. Thus, Dooleage, Hepworth et al and Bradley cannot render claim 35 obvious to the person of ordinary skill. Applicant therefore respectfully submits that claim 35 is patentable under 35 U.S.C. § 103(a) over Dooleage in view of Hepworth et al and Bradley for this additional reason.

Moreover, claim 35 requires an inner liner made of waterproof fabric. Since the Dooleage barrier bags already are impermeable, why would the person of ordinary skill combine a liner as in Bradley with the Dooleage outer tube 13, which is also impermeable according to page 8, line 3 of the February 2006 Examiner's Answer? Only hindsight provided by Applicant's disclosure would move the skilled artisan to such a redundant combination. Accordingly, Applicant respectfully submits that claim 35 is

patentable under 35 U.S.C. §103(a) over Dooleage in view of Hepworth et al and Bradley for this further reason.

F. Claims 37 and 43 Are Patentable under 35 U.S.C. § 103(a) over Dooleage in View of Hepworth et al and further in View of Labora

Claims 37 and 43 were rejected under 35 U.S.C. § 103(a) as unpatentable over Dooleage in view of Hepworth et al as applied to claim 42 and further in view of Labora. On page 13, lines 3-7 of the February 2006 Examiner's Answer, Labora is cited for its teaching of longitudinally reinforced regions and a longitudinal belt.

Each of claims 37 and 43 depends on claim 42. Claim 42 is directed to a tubular apparatus comprising an elongated fabric container having two ends, and a plurality of independent ballast tubes within the container and solid fill material within the ballast tubes. Claim 42 also requires a plurality of longitudinally spaced reinforcing regions along the length of the elongated container. Claim 42 is patentable under 35 U.S.C. §103(a) over Dooleage in view of Hepworth et al for the reasons noted above in Section B. Labora fails to correct the deficiencies noted above in the combination of Dooleage in view of Hepworth et al. Thus, claims 37 and 43 are patentable under 35 U.S.C. §103(a) over Dooleage in view of Hepworth et al and Labora for the same reasons that claim 42 is patentable over Dooleage in view of Hepworth et al.

As noted above, Dooleage teaches a cover 13 that contains barrier bags in the form of liquid-filled bags without solid fill. Labora teaches a flexible envelope 1 filled with a solid material 2 such as sand and cement that is solidifiable after being injected under pressure. The Labora structure as shown in the drawings includes internal

reinforcing members 4 that are fixed internally between opposing walls of the envelope 1. Per lines 86-89 of Labora, when not under load, these members 4 have a length that is less than the corresponding inside dimension of the expanded envelope 1.

Labora fails to suggest or disclose using a plurality of independent ballast tubes inside an elongated fabric container. Instead of ballast tubes, the teachings of Labora are directed to a lattice-type structure that resembles the use of rebar, cemented in place. Thus, the skilled artisan is likely to view the cemented lattice teachings of Labora as incompatible with the liquid-filled ballast tube teachings of Dooleage. Not even the final rejection suggests that Labora teaches replacing the water in Dooleage's barrier bags with cement. There is no suggestion of how to pick and choose elements of Labora to be combined in a particular way with other chosen elements of Dooleage in order to arrive at the apparatus of claims 37 and 43. Only by the hindsight provided by Applicant's disclosure can the skilled artisan derive from Labora the idea of supplying solid fill material to the barrier bags of Dooleage. Accordingly, Applicant respectfully submits that absent the hindsight provided by Applicant's disclosure, Labora fails to overcome the deficiencies in the Dooleage and Hepworth et al disclosures concerning the subject matter of claims 37 and 43.

Moreover, as to reinforcing regions required by claims 37 and 43, even though Fig. 2 of Labora shows belt-like structures 6, 7, 8 around the envelope 5, which contains solid cement, there is no suggestion in either Dooleage or Labora to use such belts around an envelope that surrounds liquid-filled, impermeable ballast tubes. For the Dooleage structure is deformable due to the shifting of the water inside the barrier bags in response to externally imposed dynamic forces. Labora by contrast, presents

what is a strictly static situation due to the solidified cement. Accordingly, for this additional reason, Applicant respectfully submits that claims 37 and 43 are patentable under 35 U.S.C. §103(a) over Dooleage in view of Hepworth et al as applied to claim 42 and further in view of Labora.

G. Claims 6, 8, 11, 13-15, 19-21 and 26-30 Are Patentable under 35 U.S.C. § 103(a) over Dooleage in View of Hepworth et al and Holmberg

The deficiencies of the Dooleage in view of Hepworth et al rejections concerning the provision of solids in Dooleage's impermeable barrier bags are explained above in Sections A and B concerning claims 1, 16 and 25. Similar to claims 1, 16 and 25, claim 6 requires a continuous tubular-shaped container having an inside space that contains at least two ballast tubes that are filled with fill material solids. Claims 8, 11 and 13-15 depend on claim 6. Claims 19-21 depend on claim 16, and claims 26-30 depend on claim 25. Thus, each of claims 6, 8, 11, 13-15, 19-21 and 26-30 requires an elongated or tubular-shaped container having an inside space that contains at least two ballast tubes, which themselves are filled with fill material solids. Accordingly, Sections A and B explain why the Dooleage in view of Hepworth et al combination is deficient in rendering claims 6, 8, 11, 13-15, 19-21 and 26-30 unpatentable under 35 U.S.C. §103(a).

Holmberg is cited only for its teaching of anchor tubes (February 2006 Examiner's Answer page 15, line 3) and a scour apron (Examiner's Answer page 15, lines 12 and 17). Because Holmberg fails to correct the above-noted deficiency in the asserted combination of Dooleage in view of Hepworth et al, the structure of each of

claims 6, 8, 11, 13-15, 19-21 and 26-30 as a whole is not rendered unpatentable under 35 U.S.C. § 103 (a) over Dooleage in view of Hepworth et al and Holmberg for this first reason.

On page 14, lines 11-13 of the February 2006 Examiner's Answer, the following assertion is made:

> Hepworth et al. teaches erosion control bags (10) can be used for dissipation of wave action as well as for flood control, based upon what type of ballast material is used to fill the bags.

However, this assertion is incorrect. Hepworth et al never mentions the word ballast at all. Hepworth et al never states that one type of ballast material is suitable for dissipation of wave action while another type of ballast material is suitable for flood control. Thus, the above statement is an untrue statement of what Hepworth et al discloses. Since the rejection of claims 6, 8, 11, 13-15, 19-21 and 26-30 is founded on this untrue statement, such rejection should be reversed for this additional reason.

The February 2006 Examiner's Answer makes the following assertion on page 14, lines 14-17 thereof:

> it would have been obvious to one of ordinary skill in the art, at the time the invention was made to fill the ballast tubes of Dooleage, with solid fill materials as taught by Hepworth et al., in order to expand the utility of the flood control bag.

However, the accuracy of this statement depends on the accuracy of the prior statement, which has been revealed to be untrue. Thus, this latter statement likewise is untrue. Moreover, Sections A and B have demonstrated why it would NOT have been obvious to one of ordinary skill in the art, at the time the invention was made to fill the barrier bags of Dooleage, with solid fill materials as taught by Hepworth et al. Thus,

claims 6, 8, 11, 13-15, 19-21 and 26-30 as a whole are not rendered unpatentable under 35 U.S.C. § 103 (a) over Dooleage in view of Hepworth et al and Holmberg for this additional reason.

1. Claims 11, 13-15, 19-21

Claim 6 requires a first cradle tube positioned against the tubular-shaped container. Claim 11 depends on claim 6 and specifies that filler tubes are located within the cradle tube.

While Holmberg discloses a cradle tube 26, Holmberg does not disclose ballast tubes. Nor does Holmberg suggest introducing any ballast tubes into this cradle tube. Dooleage does not recognize the existence of cradle tubes. Nor does Dooleage suggest using ballast tubes in cradle tubes.

Nonetheless, on page 15, lines 7-9 of the February 2006 Examiner's Answer, the following assertion is made:

> In regards to claims 11, 13-15 Dooleage discloses positioning a filler tube (20) within a ballast tube (19), which together form an anchor means (19), that facilitates holding the larger bags in place, while said larger bags (11, 12) are filled.

However, this assertion is only partially true, contradicts itself and thus is substantially inaccurate. The partial truth rests in identifying the numeral 19 in Dooleage Fig. 5 to refer to an anchor means. This is expressed at Dooleage column 3, lines 10-13. This truth then contradicts the assertion that the numeral 19 in Dooleage Fig. 5 identifies a ballast tube. The numeral 19 does not identify a ballast tube in Dooleage. Per Dooleage column 3, lines 13-17, Dooleage explains that the anchor means 19 comprises a bag 20 that is shaped like a donut so that bag 20 doesn't roll when laid flat.

Moreover, as is plainly shown in Fig. 5, the bag 20 that is the anchor means 19 is disposed inside the outer container 13. Thus, the anchor means 19, which is bag 20, is not disposed within a ballast tube, which allegedly are bags 11, 12, not the anchor means 19. Accordingly, yet another false attribution of the prior art teaching of Dooleage forms the basis of the Examiner's Answer's rejection – this time of the rejection of claims 11 and 13-15, which rejection should be reversed for this additional reason.

Moreover, Holmberg teaches anchoring a mat 20 with anchoring pockets 22 and stabilizing the mat 20 by placing on top of mat 20 a larger-diameter, elongated stabilizer tube 24 filled with solids that is surrounded on each side by a smaller diameter, elongated control pocket 26, which is also filled with solids. Dooleage does not contemplate any such mat. Nor does Dooleage contemplate any such control pocket. Holmberg does not contemplate the use of ballast tubes in any respect, much less within a tubular container. Only Applicant's disclosure guides the skilled artisan to the configuration of claims 13-15 and 19-21. Applicant therefore respectfully submits that each of claims 13-15 and 19-21 is patentable under 35 U.S.C. § 103(a) over Dooleage in view of Hepworth et al and further in view of Holmberg for this further reason.

2. Claim 26

Claim 26 adds to the requirements of claim 25, the further requirement of a first cradle tube positioned adjacent to the container. Neither Dooleage nor Hepworth et al discloses the use of cradle tubes positioned adjacent a first continuous tubular shaped container. While Holmberg discloses the use of a control pocket 26 adjacent a tubular

shaped stabilizer 24 wherein both the tubular shaped stabilizer 24 and the control pocket 26 are disposed atop an underlying mat 20 formed of water permeable geotextile material, such a disclosure fails to suggest to the skilled artisan to use a cradle tube adjacent a tubular shaped container that is not already disposed atop an underlying mat structure that is anchored by anchoring pockets 22.

Nor is there is any motivation to combine the control pocket 26 of Holmberg with the container of barrier bags shown in Dooleage. Dooleage at column 3, lines 10-17, already teaches stabilization of the water filled bags using doughnut-shaped water filled bags 20 as anchors, not a control pocket as in Holmberg. There is no need or advantage to the control pocket as in Holmberg. Moreover, these donut-shaped bags 20 in Dooleage are disposed inside the surrounding cover 13, not alongside it as are the Holmberg control pockets. Only the hindsight provided by Applicant's disclosure teaches the use of the cradle tube adjacent the tubular shaped container without the underlying mat structure that is anchored by anchoring pockets 22. Thus, claim 26 is patentable over Dooleage in view of Hepworth et al and Holmberg for this added reason.

3. Claims 27-30

Each of claims 27-30 adds to the requirements of claim 25, the further requirement of a scour apron. Absent the hindsight of Applicant's disclosure, there would be no suggestion how to combine the elongated water filled bags of Dooleage with the reef 40 composed of a plurality of solid filled bags 10 of Hepworth et al, and a mat 20 of Holmberg, to somehow reconstruct the invention defined in claims 27-30. Holmberg teaches an erosion control foundation mat 20, but only with smaller diameter,

solid-filled tubes 26 on opposite sides of a larger diameter, solid-filled tube 24, but without any ballast tubes within either of the solid-filled tubes 24, 26. Without hindsight instruction provided by Applicant's disclosure, the person of ordinary skill would not combine these separate structures in the manner asserted by the rejection. Applicant therefore respectfully submits that each of claims 27-30 is patentable under 35 U.S.C. § 103(a) over Dooleage in view of Hepworth et al and further in view of Holmberg for this additional reason.

H. Claims 62-72, 76 and 77 Are Patentable under 35 U.S.C. § 103(a) over Dooleage in View of Bradley

Claim 62 requires a plurality of ballast tubes within an elongated fabric container. Claim 62 also requires a plurality of transverse reinforced regions along the length of the container to provide structural support to the container.

According to page 17, lines 14-16 of the Examiner's Answer:

> Dooleage discloses a barrier in the form of an elongated container (13) having two ends and a plurality of ballast tubes within the elongated container (13). As well as a plurality of transverse reinforced regions along the length of the elongated container, * * * .

However, this assertion contains two errors. Firstly, that Dooleage discloses "a plurality of transverse reinforced regions along the length of the elongated container," where that container is cover 13, is a misreading of the Dooleage disclosure. Per Dooleage column 2, lines 35-40 (emphasis added), the "**or** straps (not shown) wrapped around the bags and spaced therealong" are structures that are used as alternatives to the cover 13 that is used to hold the bags 11, 12 together. Note the Dooleage use of the

alternative conjunction, "or." Dooleage does not disclose that the straps are used in addition to the cover (or container) 13. Since the Examiner's Answer relies on the presence of the container 13, then the Examiner's Answer must concede that the straps are not present to be "wrapped around the bags and spaced therealong." Since this rejection of claims 62-72, 76 and 77 rests on a teaching that is contrary to what is expressed in Dooleage, this rejection must be overturned.

Secondly, that the straps wrapped around the bags act as "a plurality of transverse reinforced regions along the length of the elongated container,"[1] is contrary to Dooleage's stated function for the straps. The stated function of the straps per Dooleage column 2, lines 36-37 is as "means * * * for holding the bags together." The stated function is not to reinforce the cover 13 within which the bags are disposed. Since this rejection of claims 62-72, 76 and 77 rests on another teaching that is contrary to what is expressed in Dooleage, this rejection must be overturned for this further reason.

Per Dooleage column 1, lines 50-64, the Dooleage structure is directed to a flexible, water barrier that is water-filled and that will not itself roll. The Dooleage structure is not directed to a geotextile structure, which entails using fabric (hence the "textile") filled with dirt, soil, sand, gravel or other earthly solids (hence the "geo"). That Dooleage employs rubber rather than fabric is consistent with its status as a water-filled structure and its failure to qualify as a geotextile structure. Per Bradley column 1, lines

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1 A similar erroneous statement is made at page 18, lines 15-17 of the February 2006 Examiner's Answer as follows:

> Dooleage discloses it is known and desireable to reinforce erosion control bags with straps or hoops to reinforce the bags at several locations along the length of the bags.

However, the straps disclosed in Dooleage are to hold the ballast bags 11, 12 together, not to reinforce the outer cover 13.

1-10, the Bradley structure is directed to a geotextile container, a fabric container filled with earthly solids. In somewhat simplistic terms, Dooleage discloses a water balloon, and Bradley discloses a cloth bag filled with earthly solids. Thus, in somewhat simplistic terms, in combining the teachings of these two references the Examiner's Answer would combine a water balloon (Dooleage) and a dirt bag (Bradley).

The person of ordinary skill recognizes the differing fluid dynamics and structural dynamics of the two, but the February 2006 Examiner's Answer ignores these differences and fails to explain why the person of ordinary skill would ignore them. Hence, the following conclusory statement at page 18, lines 11-14 of the February 2006 Examiner's Answer cannot be supported and must fall:

> Therefore, it would have been obvious to one of ordinary skill in the art, at the time the invention was made to form the barrier of Dooleage, from geotextile materials, as taught by Bradley, in order to provide a barrier, commensurate with its application. See Bradley Col. 6.

Because this statement falls, the rejection of claims 62-72, 76 and 77 is deficient and must be reversed for this additional reason.

The Examiner's Answer fails to explain why the skilled artisan would deem it feasible, much less desirable, to supply reinforcing regions (as in a Bradley dirt bag for example) to Dooleage's water balloon. Because of the fluid nature of the water in Dooleage's barrier bags, such reinforcing regions would be ineffective at best and counterproductive at worst. Accordingly, the rejection of claims 62-72, 76 and 77 is deficient and must be reversed for this further reason.

There is another problem with the Examiner's Answer's contention that it would be obvious to provide Dooleage's container with transverse reinforcing regions such as

taught by Bradley. The problem here of course is that Dooleage was patented in 1992, and the application for the Bradley patent was filed in 1997, a span of five years. Yet, Bradley never hints at the applicability of the reinforcing regions to a tube designed to contain water-filled ballast tubes, such as the by then well-known Dooleage structure.

Wave dissipation occurs because the water-filled barrier bags absorb wave energy when the water in the barrier bags shifts position in reaction to the striking wave. In Bradley by contrast, the fill materials are solids that behave differently insofar as their ability to absorb wave energy and dissipate the energy, because the fill material is not a liquid. Thus, the reinforcing regions in the Bradley disclosure have far less need to be flexible to accommodate the movement of the liquid that is within the water-filled barrier bags of Dooleage. Accordingly, the person of ordinary skill would not regard the type of reinforcing regions disclosed in Bradley to have a similar applicability in the environment of the water-filled barrier bags of Dooleage. For the final rejection to suggest the contrary, oversimplifies how the person of ordinary skill would view these two very different disclosures, Bradley and Dooleage, based on the very different flow characteristics of the material held inside the respective containers, solid fill versus liquid fill. The final rejection is deficient in failing to address these concerns of the person of ordinary skill. This failure leaves the final rejection of claim 62, and all claims dependent thereon, wanting, and requires reversal. Accordingly, claims 62-72, 76 and 77 are patentable under 35 U.S.C. § 103 over Dooleage in view of Bradley for this additional reason.

I. Claims 76 and 77 Are Patentable under 35 U.S.C. § 103(a) over Bradley in View of Dooleage

Each of claims 76 and 77 requires at least one ballast tube to be disposed on the inner surface of a container that is formed by longitudinal seaming and at least two cylindrical tubular sections that join together to form a transversely oriented reinforced region along a length of the geotube. Claims 76 and 77 were rejected under 35 U.S.C. § 103(a) as unpatentable over Bradley in view of Dooleage.

The final rejection acknowledges that Bradley fails to disclose providing any ballast tube inside the container. Then on page 20, lines 12-18 of the Examiner's Answer, the rejection states that:

> However, Dooleage teaches it is known to dispose at least one ballast tube (11, 12, 13, 15') in order to form a pyramid shaped water barrier, from a plurality of geotubes. Dooleage further discloses the geotubes can be bundled together using a net or anchoring straps. Therefore, it would have been obvious to one of ordinary skill in the art, at the time the invention was made to provide the water barrier of Bradley with at least one ballast tube, as taught by Dooleage, in order to form a water barrier of a desired height. See Dooleage, Col. 2, Ins. 30-40.

However, the asserted motivation itself assumes too much and ignores a basic contradiction. When it comes to constructing a barrier of a desired height, Dooleage does not teach the provision of an additional barrier tube inside the cover 13. Rather, Dooleage teaches the provision of a separate tube, 17 (Fig. 3) or 15' (Fig. 4). See Dooleage column 2, lines 58-63. Bradley fills its elongated container with solid fill to achieve a desired height. The February 2006 Examiner's Answer does not explain what would motivate the skilled artisan to replace the solid fill with a ballast tube filled with water based on some motivation to achieve a desired height. To the contrary, it

would seem that it would be easier to build a given height with solid fill rather than the ballast tube filled with water, which would tend to settle at a lower height for any given volume. Accordingly, the express motivation in the Examiner's answer for the asserted combination makes no logical sense. This factor hints that this rejection is guided solely by hindsight rather than any substantial evidence of what would have been obvious to the person of ordinary skill concerning the structure described in claims 76 and 77. Accordingly, Applicant respectfully submits that claims 76 and 77 are patentable over Bradley in view of Dooleage for this reason, and the rejection to the contrary should be reversed.

Dooleage discloses only water-filled barrier bags. Wave dissipation occurs in Dooleage because the water-filled barrier bags absorb wave energy when the water in the barrier bags shifts position in reaction to the striking wave. In Bradley by contrast, the fill materials are solids that behave differently insofar as their ability to absorb wave energy and dissipate the energy, because the fill material is not a liquid. Moreover, because the Bradley solids are more resistant to deformation caused by wave forces than mere water would resist such forces, it is illogical that the person of ordinary skill would conclude that the substitution of a plurality of barrier bags, as taught by Dooleage, should be done to increase the wave dissipation strength of the Bradley container. For the final rejection to suggest the contrary, oversimplifies how the person of ordinary skill would view these two very different disclosures, Bradley and Dooleage, based on the very different flow characteristics of the material held inside the respective containers, solid fill versus liquid fill. It is therefore impossible that any such motivation could have influenced the person of ordinary skill to make the combination asserted by

the final rejection. Thus, the final rejection is deficient in failing to address these concerns of the person of ordinary skill. This failure leaves the final rejection of claims 76 and 77, wanting, and requires reversal.

Moreover, Bradley in fact makes no reference to the existence of ballast tubes at all, notwithstanding that the Dooleage patent preceded the Bradley patent by many years. Thus, the final rejection is incongruous in this regard as well.

Finally, Dooleage only discloses more than just one water-filled barrier bag. Dooleage teaches the person of ordinary skill that the wave-dissipation characteristics of one water-filled barrier bag are very different from the wave-dissipation characteristics of more than one water-filled barrier bag. The final rejection ignores this fact in ascribing a motivation in hindsight in order to construct the devices of claims 76 and 77.

Accordingly, for the reasons asserted above warrant the reversal of the rejection of claims 76, and 77 dependent thereon, under 35 U.S.C. §103(a) over Bradley in view of Dooleage.

J. Conclusion

As explained more fully above, the rejections are deficient in their reliance upon flawed motivations for combining selected teachings from one reference with selected teachings from another reference. In some cases, these selections ignore contradictory teachings in the references. In other cases, these motivations are flawed in their false factual assumptions. In yet other cases, these motivations are flawed because they are self-contradictory. Because of all of these deficiencies and the transparent exercise of

hindsight in the process of selecting elements from the references, the rejections are reduced to becoming little more than mere listings of the elements in the rejected claims. Additionally, the final rejections are deficient in their interpretation of the teaching of certain of the references. In view of all of the foregoing deficiencies, these rejections are in error as a matter of law, fail to provide substantial evidence of obviousness, and should be reversed.

Applicant therefore respectfully submits that the final rejections of claims 1-6, 8, 11, 13-35, 37-43, 45-72, 76 and 77, should be reversed, and these claims should be held allowable and passed to issue.

8. CLAIMS APPENDIX:

1. (Previously presented) A system for maintaining fill material solids in position to form a barrier or dam, the system comprising:

(a) a first elongated sheet of geotextile material;

(b) a means for seaming the first elongated sheet into a first continuous tubular-shaped container having an inside space;

(c) at least two ballast tubes disposed within said inside space of the container; and

(d) fill material solids held inside the ballast tubes;

(e) wherein the fill material solids are held in position by the ballast tubes and the first tubular-shaped container to form a barrier or dam.

2. (Previously presented) The system of claim 1 wherein the first tubular-shaped container additionally comprises a second elongated sheet.

3. (Previously presented) The system of claim 2 wherein the second elongated sheet is coiled into a second tubular-shaped container within the inside space of the first tubular-shaped container, thereby forming a tubular container having an inner liner.

4. (Previously presented) The system of claim 1 in which the first continuous tubular-shaped container is formed by stitching, gluing or heat bonding a geotextile material into a tubular shape.

5. (Original) The system as set forth in claim 1 whereby said tubular-shaped container comprises opposed ends that are closed to form a barrier or dam.

6. (Previously presented) A system for maintaining fill material solids in position to form a barrier or dam, the system comprising:

(a) a first elongated sheet of geotextile material;

(b) a means for seaming the first elongated sheet into a first continuous tubular-shaped container having an inside space;

(c) at least two ballast tubes disposed within said inside space of the container;

(d) fill material solids held inside the ballast tubes; and

(e) a first cradle tube positioned adjacent to the first continuous tubular-shaped container, the cradle tube being configured to maintain the first tubular-shaped container in a stable position to form a barrier or dam.

7. Canceled.

8. (Original) The system of claim 6 additionally comprising a second cradle tube.

9-10. Canceled.

11. (Previously presented) The system of claim 6 in which filler tubes are located within a cradle tube.

12. Canceled.

13. (Previously presented) The system of claim 6, further comprising a scour apron disposed beneath said container and said cradle tube.

14. (Original) The system of claim 13 in which the scour apron is comprised of one or more anchor tubes and a blanket.

15. (Original) The system of claim 13 wherein the scour apron is located beneath the first tubular-shaped container.

16. (Previously presented) An apparatus for forming a barrier, comprising:

(a) an elongated container; and

(b) a plurality of independent ballast tubes within the container, the ballast tubes each having an inside and an outside space, the ballast tubes having fill material solids on

their respective inside spaces, each ballast tube being enclosed such that there is no substantial communication or flow between independent ballast tubes, each ballast tube being configured to maintain an independent solid fill level and pressure.

17. (Original) The apparatus of claim 16, further wherein the elongated container is substantially impermeable.

18. (Original) The apparatus of claim 16, further wherein the elongated container is made impermeable by: (i) coating a geotextile fabric which is employed as an elongated container, or (ii) by employing an impermeable geotextile fabric as an elongated container.

19. (Previously presented) The apparatus of claim 16 in which the elongated container is anchored in part by a scour apron having an anchor tube.

20. (Original) The apparatus of claim 19 in which the scour apron further comprises a blanket.

21. (Original) The apparatus of claim 19 wherein the scour apron supports the container on the underside of the container.

22. (Previously presented) A method of forming a barrier or dam using solid materials, comprising:

(a) providing an elongated container; and

(b) providing a plurality of independent ballast tubes within the elongated container, each ballast tube being enclosed such that there is no substantial communication or flow between independent ballast tubes;

(c) pumping a water/solids slurry into at least one ballast tube; and

(d) pumping a water/solids slurry into the elongated container.

23. (Original) A method of forming a barrier or dam using solid materials, comprising:

(a) providing an elongated container; and

(b) providing a plurality of independent ballast tubes within the container, each ballast tube being enclosed such that there is no substantial communication or flow between independent ballast tubes; and

(c) pumping a water/solids slurry into the ballast tubes.

24. (Previously presented) The method of claim 23 in which the pumping step (c) further comprises:

i) pumping water, followed by

ii) pumping a water/solids slurry into at least one ballast tube.

25. (Original) A structure that resists soil or sand erosion against high energy waves, comprising:

(a) an elongated container; and

(b) a plurality of independent ballast tubes within the container, the ballast tubes each having an inside and an outside space, the inside space having a lower portion and an upper portion, the ballast tubes being configured to receive fill material solids on their respective inside spaces;

(c) wherein at least one ballast tube contains solid fill material in a lower portion of the ballast tube and a liquid in the upper portion of the ballast tube, the upper portion of the ballast tube being capable of absorbing wave energy to maintain the structure in a stationary position.

26. (Original) The apparatus of claim 25 further comprising a first cradle tube positioned adjacent to the container.

27. (Original) The apparatus of claim 25, further comprising a scour apron.

28. (Previously presented) The apparatus of claim 27 in which the scour apron further comprises an anchor tube.

29. (Previously presented) The apparatus of claim 27 in which the scour apron further comprises a blanket.

30. (Previously presented) The apparatus of claim 27 wherein the scour apron supports the container on the underside of the container.

31. (Previously presented) A system for maintaining fill material solids in position to form a barrier or dam in a water environment, the system comprising:

(a) a first elongated tube having an interior and exterior, the tube being made of impermeable geotextile material; and

(b) a plurality of ballast tubes located within the first elongated tube, the ballast tubes being generally semi-permeable;

(c) wherein fill material solids are held in position within at least one of said ballast tubes, and water is capable of moving into or out of ballast tubes, the overall barrier or dam being essentially watertight on its exterior surface due to impermeability of the geotextile material, thus resulting in minimal net water flow to the exterior of the first elongated tube.

32. (Previously presented) The system of claim 31 wherein the first elongated tube of geotextile material comprises a coating on the exterior surface of said material.

33. (Original) The system of claim 31 wherein the first elongated tube of geotextile material is comprised of base fibers selected from the group of fibers consisting of: polyester, polypropylene, and synthetic fibers.

34. (Original) The system of claim 33 wherein the coating is compatible with the base polymeric fibers, and is selected from the group of coatings consisting of: polyvinyl chloride, polyethylene, and polypropylene.

35. (Previously presented) A system for maintaining fill material solids in position to form a barrier or dam in a water environment, the system comprising:

(a) a first elongated tube having an interior and exterior, the tube being made of partially permeable geotextile material having an inner liner of substantially waterproof fabric; and

(b) a plurality of ballast tubes located within the first elongated tube, the ballast tubes being generally semi-permeable;

(c) wherein fill material solids are held in position within at least one of the ballast tubes, and water is capable of moving into or out of the ballast tubes, the overall barrier or dam being essentially watertight on its exterior surface due to impermeability of the liner material, thus resulting in minimal net water flow to the exterior of the first elongated tube.

36. Canceled.

37. (Previously presented) The container of claim 42 wherein the container is secured along its length by hoops.

38. (Original) The container of claim 37 wherein the hoops are comprised of a plurality of thicknesses of geotextile fabric.

39. (Previously presented) The container of claim 42 in which a spiral belt is provided along the length of the container.

40. (Previously presented) The container of claim 39 in which the belt provides enhanced resistance to elongation of the container under stress.

41. (Previously presented) The container of claim 39 in which the belt is on the outside of the container.

42. (Previously presented) A tubular apparatus for forming a barrier, comprising:

(a) an elongated fabric container having two ends;

(b) a plurality of independent ballast tubes extending longitudinally within the container, the ballast tubes each having an inside and an outside space, the ballast tubes having fill material solids on their respective inside spaces; and

(c) a plurality of longitudinally spaced reinforced regions along the length of the elongated container, the reinforced regions being supportive of the elongated container and providing a greater resistance to stress than the fabric of the container.

43. (Original) The apparatus of claim 42 additionally comprising:

(d) a longitudinal belt, the belt being secured to the longitudinally spaced reinforced regions, thereby providing additional stability to the barrier.

44. Canceled.

45. (Previously presented) An apparatus for forming a barrier, comprising:

a) an impermeable elongated fabric container having an interior and an exterior;

b) at least two ballast tubes disposed within the interior of the elongated fabric container, each of the at least two ballast tubes containing water; and

c) wherein each of the at least two ballast tubes is configured to be semi-permeable so that the water can pass between each of the at least two ballast tubes and the interior of the container and between one of the at least two ballast tubes and the other of the at least two ballast tubes.

46. (Previously presented) The apparatus of claim 45, wherein the container is rendered impermeable by a coating applied to the fabric.

47. (Previously presented) The apparatus of claim 46, wherein the coating is applied to the exterior of the container.

48. (Previously presented) The apparatus of claim 46, wherein the coating is applied to the interior of the container.

49. (Previously presented) The apparatus of claim 45, wherein the container is rendered impermeable by an impermeable liner that is disposed adjacent the interior surface of the container.

50. (Previously presented) The apparatus of claim 45, wherein the container is rendered impermeable by an impermeable liner that is disposed around and encloses the at least two ballast tubes in the interior of the container.

51. (Previously presented) The apparatus of claim 45, further comprising solid fill materials disposed within the interior of the container.

52. (Previously presented) The apparatus of claim 45, further comprising:
a plurality of transverse reinforced regions disposed along the length of the elongated container, the transverse reinforced regions being configured to provide structural support to the container.

53. (Previously presented) The apparatus of claim 52, wherein each said transverse reinforced region comprises at least one belt.

54. (Previously presented) The apparatus of claim 52, wherein each said transverse reinforced region comprises at least one hoop.

55. (Previously presented) The apparatus of claim 52, wherein each said transverse reinforced region comprises at least one anchoring strap.

56. (Previously presented) The apparatus of claim 52, wherein each reinforced region comprises at least one rib.

57. (Previously presented) The apparatus of claim 52, wherein each reinforced region extends once circumferentially around the container and in a direction that is generally transversely to the longitudinal axis of the container.

58. (Previously presented) The apparatus of claim 52, wherein each reinforced region extends helically around the circumference of the container.

59. (Previously presented) The apparatus of claim 52, wherein at least one reinforced region comprises at least two thicknesses of fabric.

60. (Previously presented) The apparatus of claim 52, wherein the reinforced regions are disposed on the outside of the container.

61. (Previously presented) The apparatus of claim 52, wherein the reinforced regions are disposed on the inside of the container.

62. (Previously presented) An apparatus for forming a barrier, comprising:

a) an elongated fabric container having two ends and a plurality of ballast tubes within the elongated fabric container; and

b) a plurality of transverse reinforced regions along the length of the elongated container, the transverse reinforced regions being configured to provide structural support to the container.

63. (Previously presented) The apparatus of claim 62, wherein each said transverse reinforced region comprises at least one hoop.

64. (Previously presented) The apparatus of claim 62, wherein each transverse reinforced region comprises at least one anchoring strap.

65. (Previously presented) The apparatus of claim 62, wherein each reinforced region comprises at least one rib.

66. (Previously presented) The apparatus of claim 62, wherein at least one reinforced region comprises at least two thicknesses of fabric.

67. (Previously presented) The apparatus of claim 62, wherein each of the transverse reinforced regions comprises at least one anchoring strap.

68. (Previously presented) The geotube barrier of claim 67, wherein each of the anchoring straps is connected by a longitudinal seam extending along the length of the elongated container.

69. (Previously presented) The apparatus of claim 62, wherein the tube is constructed by seaming together the container at the transverse reinforced regions.

70. (Previously presented) The apparatus of claim 62, wherein the reinforced regions are disposed on the outside of the container.

71. (Previously presented) The apparatus of claim 62, wherein the reinforced regions are disposed on the inside of the container.

72. (Previously presented) The apparatus of claim 62, further comprising at least two ports defined along the length of the container.

73 – 75. Canceled.

76. (Previously presented) A cylindrical geotube water barrier having an inner surface formed by longitudinal seaming, comprising:

an elongated fabric container having two ends and at least two seams, the container being formed by joining together at one of said at least two seams at least two cylindrical tubular sections to form a transversely oriented reinforced region along the length of the geotube, the transverse reinforced region being configured to provide structural support to the geotube container with a high resistance to mechanical damage; and

at least one ballast tube disposed on the inner surface of the container.

77. (Previously presented) The cylindrical geotube water barrier of claim 76, wherein the reinforced regions comprise anchoring straps.

9. Evidence Appendix:

The attached brochure was submitted along with the Amendment mailed on September 23, 2002, which was entered per Paper No. 17, mailed on October 21, 2002.

Phoenix® Spiral™ Geotextile Tubes Leave the Competition

FLAT

See June/July 1997 Geotechnical Fabrics Report

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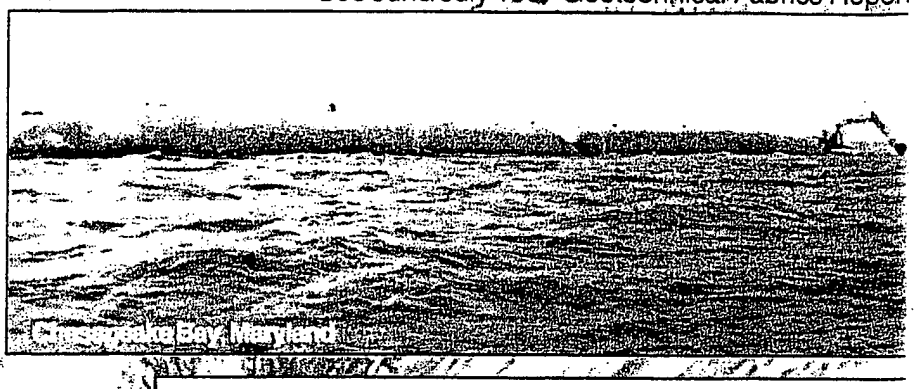

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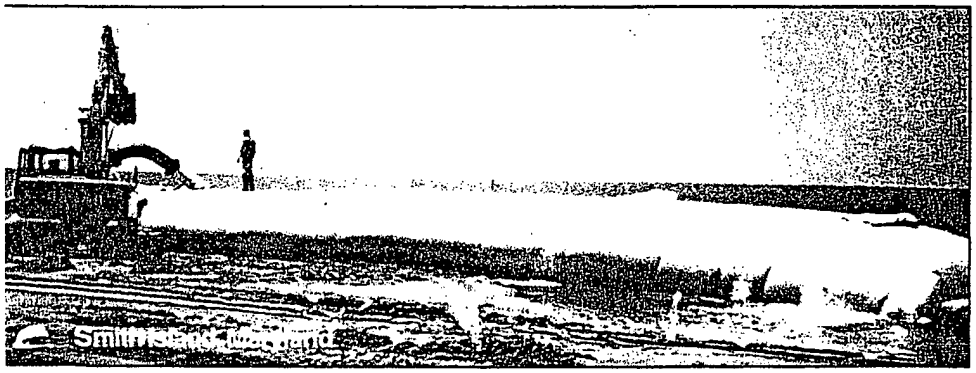

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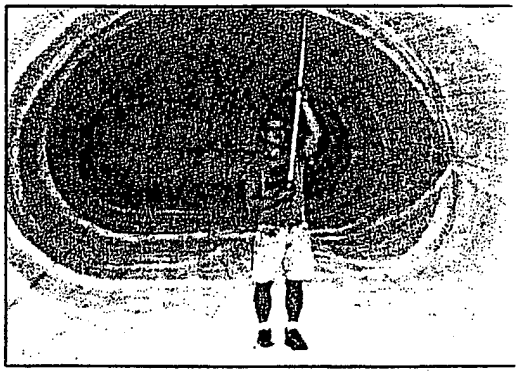

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10. Related Proceedings Appendix:

N/A

Respectfully submitted,

DORITY & MANNING, P.A.

DATED: Monday April 17, 2006

James M. Bagarazzi

James M. Bagarazzi
Reg. No. 29,609
P.O. Box 1449
Greenville, S C 29602-1449
(864) 271-1592

'04-18-06

AF

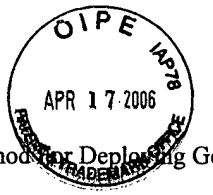
DM-10/2003

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
Re: Appeal to the Board of Patent Appeals and Interferences

In re Application of: Anthony S. Bradley

Group Art Unit: 3671

Serial No.: 09/612,810



Examiner: Raymond W. Addie

Filed: July 10, 2000

Our Customer ID: 22827

For: Apparatus And Method For Deploying Geotextile Tubes

Our Account No.: 04-1403

Sir:

Attorney Ref.: BIT-12

1. [ ] **NOTICE OF APPEAL**: Pursuant to 37 CFR 41.31, Applicant hereby appeals to the Board of Appeals from the decision dated ___ of the Examiner twice/finally rejecting claims ____.
2. [ ] **BRIEF** on appeal in this application pursuant to 37 CFR 41.37 is transmitted herewith.
3. [ ] An **ORAL HEARING** is respectfully requested under 37 CFR 41.47 (due within one month after Examiner's Answer).
4. [X] Reply Brief under 37 CFR 41.41(b) is transmitted herewith (1 copy).
5. [ ] "Small entity" verified statement filed: [ ] herewith [ ] previously.
6. **FEE CALCULATION:**

		Fees
If box 1 above is X'd enter $500.00		$_____
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If box 3 above is X'd enter $1,000.00		$_____
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Petition is hereby made to extend the original due date of _____ to cover the date of this paper and any enclosure for which the requisite fee is (1 month $120); (2 months $450); (3 months $1,020); (4 months $1,590), (5 months $2,160)		$_____
	Subtotal	$_____
Less any previous extension fee paid since above original due date.	-	$_____
	Subtotal	$_____
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[ ] Fee enclosed.
[ ] Charge fee to our Deposit Account/Order Nos. in the heading hereof (for which purpose one additional copy of this sheet is attached)
[X] Fee NOT required since paid in prior appeal in which the Board of Appeals did not render a decision on the merits.

The Commissioner is hereby authorized to charge any fee specifically authorized hereafter, or any fees in addition to the fee(s) filed, or asserted to be filed, or which should have been filed herewith or concerning any paper filed hereafter, and which may be required under Rules 16-18 (deficiency only) now or hereafter relative to this application and the resulting official document under Rule 20, or credit any overpayment, to our Account No. show in the heading hereof for which purpose a duplicate copy of this sheet is attached. This statement does not authorize charge of the issue fee in this case.

ADDRESS:
Post Office Box 1449
Greenville, SC 29602 USA
Customer ID No.: 22827
Telephone: 864-271-1592
Facsimile: 864-233-7342

DORITY & MANNING, ATTORNEYS AT LAW, P.A.

By: James M. Bagarazzi Reg. No.: 29,609
Signature: James M. Bagarazzi
Date: 4-17-06